REMARKS

In the office action mailed July 28, 2004, claims 1-20 were rejected as being unpatentable under 35 USC 103(a) based on Moribe (US 5818812) in view of Kajiyama (US 6108296) and Mochizuki (US 6097814).

Claims 1, 3 and 15 are rejected on grounds that the elements of the claims are found in the references at the locations given by the rejection and that the references provide motivation to one skilled in the art to make the claimed combination. The rejection is erroneous because it fails to locate or identify all the elements of the claims in the references, the cited portions of the references do not show the elements of the claims, the rejection misconstrues the references, a reference teaches away from the claimed combination, and the combination proposed by the rejection would defeat the purpose of one of the references.

Claim 1 has two IDs and an encrypted program whose encryption is based on both a preformed and a unique ID. However, the reference of Moribe encrypts only with its unique ID; it does not use its other ID to encrypt. The rejection failed to give consideration to this limitation of claim 1 and thus is erroneous.

In addition, Moribe teaches away from using two IDs and modifying Moribe to do so would defeat its intended purpose. Let me explain.

Moribe, by its own terms, addresses a problem of fatigue. In its background it identifies an earlier application that provided one code which was used repeatedly to check the disc. That one code was put in a rewriteable area and was written with a high intensity beam to make it irreversible. But Moribe '812 observes that their prior system was flawed because it relied upon reading the code, erasing the sector where the code was written and then reading it again to see if the code was there. Given the frequent code checks, the sector soon became fatigued and could no longer erase.

In Moribe '812 the earlier read/erase/reread system is carried forward. Moribe reduces the fatigue by adding a medium judge code 2 to the disc. But the disc still

uses a medium identification code 4 that is irreversibly written in a rewritable area. The medium judge code 2 is used, presumptively for more frequent read checks and the medium identification code is likely used for less frequent write checks. See Figs. 7a, 7b and column 7, lines 24-46 (judge code) and lines 47-67 (identification code).

Moribe '812 mandates that the two codes be used separately. The identification code is used to write and normally a disc has fewer writes than reads. The judge code is used for the more frequent read operations. It would defeat the purpose of Moribe '812 to combine the judge and identification codes. If they were combined, then each check would use both codes. That would mean the judge code would be used for each check. That is precisely the problem that Moribe '812 seeks to overcome. Such repeated use would lead to the early fatigue that Moribe was seeking to prevent. In other words, combining the two codes would remove the benefit of having a separate code, such as the identification code, that reduced the use of the judge code.

Therefore, the Moribe reference teaches away from the using two IDs. As such, it would be improper to combine the judge and identification codes of Moribe to operate on encrypting a program.

In Kajiyama '296 the vendor code 10 is not part of a copy protection system and is not used by Kajiyama '296 to encrypt a program. The vendor code 10 is merely one datum among other data that is written into a protected area on a writable disc. The protected area cannot be overwritten; it is protected from erasure. In Kajiyama '296 the anti-theft feature is performed by the micro pits. These features cannot be readily copied. If a read-only disc with micro pits is copied, the micro pits are not reproduced and the copied disc will not run.

The Kajiyama vendor code that is used as a basis for rejection is unrelated to the micro pits and is unrelated to the anti-copying feature. Kajiyama '296 has no disclosure that its vendor code is used to encrypt a program. Instead, the vendor code appears to be simply one other datum among a field of data that is used to inventory the disc.

Another error in the rejection is the finding of an ATIP signal and sub groove in Kajiyama. First, the reference itself never uses the expression "ATIP" or "sub groove." Second, those skilled in the art would understand that the optical disk of Kajiyama is a read only disk and as such has no need for an ATIP signal and a sub groove. The ATIP signal is unique to writable discs. The ATIP signal controls the writer and without it the disc could not receive data from the user. Of course, a read-only disc, such as the one shown in Kajiyama has no need for an ATIP signal. To assist the examiner in understanding this feature of hybrid disc, Applicants' attorney attaches two articles found on the Wide World Web that support this understanding of the relationship between ATIP signals and hybrid discs.

The Mochizuki reference is also a read only disc. It too lacks an ATIP signal and its application to the invention is clearly erroneous.

Mochizuki also lacks two or more security levels. The rejection relied upon an alleged ATIP signal in Mochizuki as one security level. That reliance was erroneous because the read only disc of Mochizuki has no ATIP signal.

Claims 2 and 4 depend from claims 1 and 3, respectively, and are patentable over the art for the same reasons given above for claims 1 and 3.

Claim 5 depends from claim 3 and is allowable for the same reasons given above. In addition, claim 5 requires an ATIP signal and the Kajiyama and Mochizuki references have no ATIP signal.

Claim 6 is depends from claim 3 and is allowable for the same reasons given above. In addition, claim 6 calls for using both IDs to decrypt the encrypted program. As pointed out above, no reference uses two IDs to encrypt and likewise no reference uses two IDs to decrypt. The Moribe reference teaches away form combining two IDs to encrypt or decrypt. Using both IDs of Moribe would defeat its intended function of using separate IDs to prolong the life of the disc.

Claim 7 is depends from claim 1 and is allowable for the same reasons given above.

Claims 8 and 9 depend from claim 1 and are patentable for the reasons given above.

Claim 10 defines a system where a copy protected disc is encrypted with two IDs. Neither Moribe nor any other of the applied references shows or suggests using preformed and unique IDs to encrypt a program. Moribe uses only one ID at a time and teaches away from combining IDs.

Claim 11 depends from claim 3 and is patentable for the reasons given above. In addition, neither Moribe nor any other of the applied references shows or suggests using preformed and unique IDs to encrypt a program. Moribe uses only one ID at a time and teaches away from combining IDs.

Claim 12 depends from claim 1 and is patentable for the reasons given above. In addition, Applicants traverse the finding that Kajiyama at col. 6, lines 23-39 teaches impressing an encrypting program onto a disc. That section of the reference refers to the copy protected area on a disc but is silent about how the area is protected. It has no disclosure of an encrypting program.

Claim 13 depends from claim 10 and is patentable for the reasons given above. In addition, the Moribe reference does not disclose locating the encrypting program on another computer. Moribe is silent about the location of the encrypting program and thus does not show the limitations of claim 13.

Claim 14 depends from claim 11 and is patentable for the reasons given above. The cited portion of Moribe does not show the detailed limitations of claim 14. Moribe merely detects whether or not the disc is genuine. Claim 14 is more sophisticated and more detailed. It requires detection of the type of disc, i.e., whether it is a read/write or a read only. The preformed ID may be stored at different locations and claim 14 uses the results of the detection step to select which of the preformed IDs is used.

Claim 15 depends from claim 11 and is patentable for the reasons given above for claim 11 and also for the reasons give above for claim 1. The applied references

do not show or suggest different levels of security. The multiple levels of security a disc are unique to the invention. The rejection erroneously binds an ATIP signal in the Mochizuki reference and uses it as one of the security levels. But, the read-only Mochizuki disc has no ATIP signal.

Claim 16 depends from claim 6 and is patentable for the reasons given above. In addition, the applied reference of Mochizuki has no ATIP signal and the finding that it does have one is clearly erroneous.

Claim 17 depends from claim 6 and is patentable for the reasons given above. In addition, the applied reference Kajiyama also has not ATIP signal and thus no sub code. The disclosure of Kajiyama is silent about sub codes and a key word search of its text fails to show or suggest this limitation.

Claim 18 depends from claim 1 and is patentable for the reasons given above.

Claim 19 depends from claim1 and is patentable for the reasons given above.

Claim 20 is patentable over the art of record on grounds that none of the art applied to the claim shows or suggests two preformed IDs and a unique ID. The rejection acknowledges that Moribe does not have a preformed ID in the ATIP signal and the other references have no ATIP signal. The rejection erroneously finds that Mochizuki has a preformed ID in an ATIP signal. As pointed out above, Mochizuki is a read only disc and thus has no ATIP signal.

In summary, the above remarks show that the claims as presented are patentable over the art of record and a notice of allowance is respectfully solicited.

Respectfully submitted,

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Date

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Every CD-R has important info on the disc itself which is called ATIP (Absolute Time In Pre-groove) or pre-groove for short. Without this data/info the CD-R cannot be used by a writer. The ATIP contains the following info:

- The capacity of the CD-R
- The manufacturer of the CD-R
- The type of the CD-R (eg. Audio only)
- Supported writing speeds
- Absolute lead-in time
- Last possible address where data can be written
- etc...

Only a CD-Writer can read the ATIP (because like I said before this ATIP is only needed when writing a CD-R).

The ATIP protection is based on this fact: when the game starts it checks if there's ATIP info present: if so then it will presume it's a CD-R disc and will not play. However a normal CD-ROM cannot read this ATIP and will of course 'say' that this data is not present: thus the copy will work...

ATIP Wobble

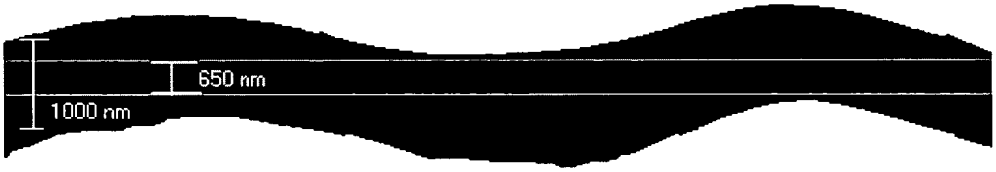
The ATIP (Absolute Time-In Pregroove), contains information about the blank CD. This information is required, so that the drive knows what kind of disc it is writing to, and so that it does not stray from the spiral it is supposed to write in.

The Main Data Channel (The area in which data is actually written), is 650 nm wide, and is shown in red.

The ATIP wobble, is approximately 22.05 kHz, and includes information by modulating the wobble frequency. The wobble is 1000 nm wide, and is shown in black. Because the wobble is so much wider than the Main Data Channel, and because the wobble is so slight, you can burn inside of it without damaging it, or make it unreadable in any way.

Main Data
Channel

Wobble (Includes ATIP Info, as part of the modulation)
(22.05 kHz)



Note that normal CD-ROM's and DVD-ROM's cannot read the ATIP, since it is only needed for CD-Writing. It can be used in copy protections, by checking to see if ATIP info is present. Since the ATIP does not exist in pressed CD's (The kind that come from the manufacturing plant), if it is present, in can be presumed that the CD is a copy. This kind of protection can only be defeated by reading the disc from a drive which cannot detect the ATIP info, or using utilities such as Daemon Tools and CloneCD's "Hide CDR" features, which block all requests for the ATIP info sent to the drive.

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